AMEDNDMENT TO THE CLAIMS

Please amend the claims as follows:

Claims 1-78. (Cancelled).

79. (Previously presented) A method of distributing information by a point of distribution to subscribers via a communication network, comprising:

dividing a television broadcast spectrum into a plurality of subscriber channels, each subscriber channel having a deterministic bandwidth;

allocating unshared bandwidth to each of a plurality of subscriber destinations, wherein only a selected subscriber destination from among the plurality of subscriber destinations forwards or receives information utilizing its allocated unshared bandwidth;

assigning each of the subscriber destinations to a subscriber channel;

forwarding source information to each subscriber destination based on assigned subscriber channels;

modulating forwarded source information for each subscriber channel;

up converting modulated forwarded source information into a corresponding one of the subscriber channels;

combining up converted, modulated forwarded source information from each subscriber channel into a combined signal; and

distributing the combined signal to the plurality of subscriber destinations via the communication network;

allocating broadcast television channels within a predetermined frequency range of the television broadcast spectrum;

dividing the plurality of subscriber channels into a remaining portion of the television broadcast spectrum outside the predetermined frequency range allocated to the broadcast television channels; and

combining the broadcast television channels into the combined signal;

allocating a first portion of the remaining portion of the television broadcast spectrum to downstream subscriber channels; and

PAGE 8/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

allocating a second portion of the remaining portion of the television broadcast spectrum to upstream subscriber channels;

wherein each subscriber channel comprises a respective downstream subscriber channel and a respective upstream subscriber channel, each having a dedicated and unshared bandwidth.

80. (Previously presented) The method of claim 79, further comprising:

dividing the television broadcast spectrum into an upstream portion and a downstream portion; and

allocating each subscriber destination an unshared downstream bandwidth and an unshared upstream bandwidth.

81. (Previously presented) The method of claim 80, wherein each subscriber channel includes a downstream subscriber channel in the downstream portion and an upstream subscriber channel in the upstream portion.

82. (Previously presented) The method of claim 79, further comprising:

subdividing at least one subscriber channel into a plurality of bandwidth increments; and

assigning multiple subscriber destinations to the at least one subscriber channel, each of the multiple subscriber destinations being allocated at least one of the bandwidth increments of the at least one subscriber channel.

83. (Previously presented) The method of claim 79, further comprising:

receiving source information from a plurality of content sewers in the form of data packets; and

the forwarding comprising forwarding the received source information based on address information within the data packets.

84. (Previously presented) The method of claim 79, further comprising:

tracking actual bandwidth usage of each subscriber destination.

PAGE 9/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

85. (Previously presented) The method of claim 84, further comprising:
monitoring source information by service type provided to a subscriber destination; and
tracking bandwidth usage of the subscriber destination for each service type.

86. (Previously presented) The method of claim 79, wherein the dividing comprises dividing a substantial portion of the television broadcast spectrum into the plurality of subscriber channels.

87. (Previously presented) The method of claim 79, further comprising:
receiving a request for video information from a subscriber destination via the communication network;
receiving the requested video information in packetized format;
forwarding the packetized video information to a subscriber channel assigned to the requesting subscriber destination.

88. (Previously presented) The method of claim 87, wherein the video information is a broadcast television channel.

89. (Previously presented) The method of claim 79, further comprising:
converting the combined signal into an optical signal; and
transmitting the optical signal on an optical plant to an optical transceiver node.

90. (Previously presented) The method of claim 79, further comprising:
receiving a combined upstream signal from the communication network;
splitting the combined upstream signal into multiple streams of subscriber information;
providing each stream of subscriber information to a corresponding one of a plurality of tuners, each tuner tuned to a corresponding subscriber channel;
extracting, by each tuner, a corresponding return RF signal;
demodulating a return RF signal into packetized subscriber information; and
forwarding the packetized subscriber information.

PAGE 10/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

91. (Previously presented) The method of claim 90, further comprising:
the receiving comprising receiving an optical signal; and
prior to splitting the combined upstream signal, converting the optical signal into the combined upstream signal.

92. (Previously presented) The method of claim 79, further comprising:
detecting a request by a subscriber destination for increased bandwidth; and
increasing the allocated unshared bandwidth to the subscriber destination in accordance with the increased bandwidth request.

[[92.]] 93. (Currently amedned) The method of claim 79, further comprising:
detecting a request by a subscriber destination for a service that would require a greater amount of bandwidth than currently allocated to the requesting subscriber destination; and
increasing the allocated unshared bandwidth to the requesting subscriber destination to handle the requested service.

94. (Previously presented) The method of claim 79, further comprising:
receiving a physical address request from a subscriber destination;
retrieving the requested physical address from a stored address database; and
forwarding the retrieved physical address to the requesting subscriber destination.

95. (Previously presented) The method of claim 94, further comprising:
if the requested physical address is not found, forwarding a broadcast address resolution protocol request in an attempt to locate a device having the requested physical address.

96. (Previously presented) The method of claim 95, further comprising detecting and halting abuse of address requests by a subscriber device.

PAGE 11/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

97. (Previously presented) A method of communicating information between a point of distribution and a plurality of subscriber destinations via a hybrid fiber coax (HFC) delivery plant, comprising:

dividing a television broadcast spectrum into a plurality of subscriber channels, each subscriber channel having a deterministic bandwidth;

assigning each subscriber destination to a subscriber channel; allocating unshared bandwidth to each subscriber destination;

forwarding, by the point of distribution, source information to each subscriber destination based on assigned subscriber channels;

modulating, by the point of distribution, source information for each of the subscriber channels;

up converting modulated source information into a corresponding one of the subscriber channels;

combining, by the point of distribution, modulated information from each subscriber channel into a combined signal;

converting, by the point of distribution, the combined signal into an optical signal;

transmitting, by the point of distribution, the optical signal to an optical transceiver node via an optical plant;

converting, by the optical transceiver node, the optical signal into a combined electrical signal;

transmitting, by the optical transceiver node, the combined electrical signal via a coaxial cable to each of the plurality of subscriber destinations;

extracting, by a gateway device at a subscriber destination, modulated information from an assigned channel of the combined electrical signal;

demodulating, by the gateway device, source information from the extracted modulated information; and

forwarding, by the gateway device and as a function of an address embedded in the source information identifying a subscriber device from among a plurality of subscriber devices at the subscriber destination, demodulated source information to an identified subscriber device at the subscriber destination addressed by the address embedded in the source information.

PAGE 12/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

98. (Previously presented) The method of claim 97, prior to forwarding demodulated source information, further comprising:

converting, by the gateway device, demodulated source information into a format appropriate for the addressed subscriber device.

99. (Previously presented) The method of claim 97, further comprising:

splitting broadcast information from the combined electrical signal.

100. (Previously presented) The method of claim 99, further comprising:

converting retrieved broadcast information to appropriate format for a subscriber device.

101. (Previously presented) The method of claim 97, further comprising:

modulating, by a gateway device at a subscriber destination, subscriber information from a subscriber device;

up converting, by the gateway device, the modulated subscriber information to a radio frequency (BY) signal into an assigned subscriber upstream channel; and

transmitting, by the gateway device, the subscriber RF signal to the optical transceiver node via the coaxial cable.

102. (Previously presented) The method of claim 101, prior to modulating subscriber information, further comprising:

converting the subscriber information into digital format.

103. (Previously presented) The method of claim 101, further comprising:

receiving, by the gateway device, a physical address request in broadcast packet format; converting the physical address request to a unicast packet format; and

forwarding the unicast physical address request to an address resolution device at the point of distribution.

104. (Previously presented) The method of claim 97, further comprising:

tracking, by a gateway device at a subscriber destination, actual bandwidth usage of the subscriber destination; and

forwarding bandwidth usage information to a bandwidth manager at the point of distribution.

105. (Previously presented) The method of claim 104, further comprising:

tracking, by the gateway device, bandwidth usage of the subscriber destination for each of a plurality of service types; and

forwarding bandwidth usage information for each of the service types to the bandwidth manager.

106. (Previously presented) The method of claim 97, further comprising:

sending, by a bandwidth manager at the point of distribution, a channel switch command to a gateway device at a subscriber destination; and

switching, by the gateway device, from an assigned channel to another channel in response to the channel switch command.

107. (Previously presented) The method of claim 97, further comprising:

receiving, by the optical transceiver node, a plurality of upstream subscriber RF signals from the subscriber destinations;

combining, by the optical transceiver node, the upstream subscriber RF signals into a combined upstream signal;

converting, by the optical transceiver node, the combined upstream signal into an optical upstream signal; and

transmitting, by the optical transceiver node, the optical upstream signal via an optical plant to the point of distribution.

108. (Currently amedned) A communication system for distributing information via a network to a plurality of subscriber destinations, comprising:

PAGE 14/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

a switch matrix that forwards source information for each subscriber destination to a corresponding one of a plurality of ports of the switch matrix based on address information, wherein the switch matrix comprises arrays of switches organized as a pyramid configuration including a lowest level first array of switches and one or more higher level arrays of switches, each first array switch coupled to a subset of the RF modems, and each switch of each higher level array coupled to a subset of switches of an adjacent lower level array;

a plurality of radio frequency (BY) modems, each RF modem coupled to one of the plurality of ports of the switch matrix, and each RF modem operable to modulate and up convert information received from a respective switch port to an RF signal within a respective one of a plurality of subscriber channels of a television broadcast spectrum;

each of the plurality of subscriber channels being assigned to one or more of the subscriber destinations, each subscriber destination being assigned an unshared bandwidth allocation;

a combiner, coupled to the RF modems, that combines modulated information from each RF modem into a combined signal; and

a transmitter, coupled to the combiner, that transmits the combined signal to the plurality of subscriber destinations via the network.

109. (Currently amedned) The communication system of claim 108, further comprising:

at least one source server, each coupled to respective ports of the switch matrix, that provides the source information.

110. (Previously presented) The communication system of claim 109, further comprising:

the at least one source sewer comprising a plurality of source sewers including a video sewer, a computer network server and a telephone network sewer.

111. (Previously presented) The communication system of claim 109, wherein the at least one source sewer comprises an MPEG converter that receives and provides broadcast video content.

112. (Currently amedned) The communication system of claim 108, further comprising:

the source information comprising data packets; and

the switch matrix retrieving an address from data packets and forwarding the data packets based on the address.

113. (Previously presented) The communication system of claim 112, wherein each address identifies one of the plurality of subscriber destinations.

114. (Previously presented) The communication system of claim 113, wherein each address identifies a subscriber device of a subscriber destination.

115. (Currently amedned) The communication system of claim 108, wherein the switch matrix comprises an Ethernet switch.

116. (Previously presented) The communication system of claim 108, wherein the switch matrix further comprises:

the first array for handling a high level of bandwidth;

a second array for handling a medium level of bandwidth; and

a third array for handling a low level of bandwidth.

117. (Previously presented) The communication system of claim 116, further comprising:

the third array, coupled to a telephone network server, for handling telephonic data; the second array, coupled to a computer network server, for handling telephonic and computer network data; and

the first array, coupled to a video server, for handling video, telephonic and computer network data.

118. (Previously presented) The communication system of claim 108, further comprising:

the switch matrix including a manager switch coupled to at least one array switch;

a bandwidth manager coupled to the manager switch; and

an address resolution server coupled to the manager switch.

119. (Previously presented) The communication system of claim 118, wherein the manager switch handles communications between subscriber destinations.

120. (Previously presented) The communication system of claim 108, wherein the switch matrix is configured to operate significantly below its maximum bandwidth capacity to provide statistically starved capability.

121. (Previously presented) The communication system of claim 108, further comprising:

the network including an optical plant; and

the transmitter comprising an optical transmitter that converts a combined electrical signal to an optical signal and that transmits the optical signal onto the optical plant.

122. (Previously presented) The communication system of claim 121, further comprising:

an optical receiver, coupled to the optical plant, that converts an optical upstream signal comprising subscriber information to a subscriber electrical signal;

a splitter, coupled to the optical receiver, that provides the subscriber electrical signal to a plurality of tuners;

each of the plurality of tuners extracting a corresponding subscriber RF signal; and

a plurality of demodulators, each demodulator demodulating subscriber information from a corresponding subscriber RF signal and forwarding the subscriber information to the switch.

PAGE 17/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

123. (Previously presented) The communication system of claim 108, further comprising:

a broadcast television source that provides broadcast television information in a predetermined frequency range of the television broadcast spectrum;

the subscriber channels allocated into a remaining portion of the television broadcast spectrum outside the predetermined frequency range; and

the combiner receiving and combining the broadcast television information into the combined signal.

124. (Previously presented) The communication system of claim 123, further comprising:

a video on demand and modulator server that asserts video information; and

the combiner receiving and combining the video information into the combined signal.

125. (Currently amedned) The communication system of claim 108, further comprising:

a bandwidth manager, coupled to the switch matrix, that allocates unshared bandwidth to each subscriber destination.

126. (Previously presented) The communication system of claim 125, further comprising:

each subscriber channel comprising a plurality of bandwidth increments; and

the bandwidth manager allocating at least one bandwidth increment to each subscriber destination.

127. (Previously presented) The communication system of claim 125, wherein the bandwidth manager detects a request by a subscriber destination for a service that requires a greater amount of bandwidth than the subscriber destination is currently allocated, and wherein the bandwidth manager allocates additional unshared bandwidth to the requesting subscriber destination.

PAGE 18/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

128. (Previously presented) The communication system of claim 125, wherein the bandwidth manager sends a channel switch command to a subscriber destination to dynamically switch that subscriber destination to another assigned channel.

129. (Previously presented) The communication system of claim 125, wherein the bandwidth manager monitors bandwidth usage of each of the subscriber destinations.

130. (Currently amedned) The communication system of claim 108, further comprising:

an address resolution server, coupled to the switch matrix, that stores an address database; and

the address resolution sewer operative to respond to a physical address request by retrieving and forwarding the physical address based on a logical address.

131. (Previously presented) A communication system for enabling communication between a point of distribution and a plurality of subscriber destinations via a hybrid fiber coax (HFC) network, comprising:

an optical plant;

a point of distribution, comprising:

a multi-port switch that forwards source information for each subscriber destination to a corresponding port of the switch based on address information contained in the source information;

a plurality of radio frequency (BY) modems, each RF modem coupled to a port of the switch, and each RF modem operable to modulate and convert information received from a respective switch port to an RF signal within a respective one of a plurality of subscriber channels of a television broadcast spectrum;

each of the plurality of subscriber channels having a deterministic bandwidth and assigned to one or more of the subscriber destinations, each subscriber destination being assigned an unshared bandwidth allocation;

a combiner that combines modulated information from each RF modem into a combined signal;

PAGE 19/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

a transmitter, coupled to the combiner and the optical plant, that converts the combined signal to an optical signal and that transmits the optical signal via the optical plant;

a coaxial cable distributed to a plurality of subscriber destinations; and

an optical transceiver node, coupled to the optical plant and the coaxial cable, that converts the optical signal to an electrical signal and that transmits the electrical signal to subscriber destinations via the coaxial cable.

132. (Previously presented) The communication system of claim 131, further comprising:

a plurality of gateway devices, each located at a respective subscriber destination and coupled to the coaxial cable, each comprising:

a tuner, for coupling to the coaxial cable, that is tuned to an assigned subscriber channel to extract modulated information from the electrical signal; and

a demodulator, coupled to the tuner, that demodulates the extracted modulated information into source information.

133. (Previously presented) The communication system of claim 132, wherein the tuner is dynamically programmable to switch to at least one other of the subscriber channels.

134. (Previously presented) The communication system of claim 132, wherein the tuner is dynamically programmable to tune to multiple subscriber channels.

135. (Previously presented) The communication system of claim 132, wherein each gateway device further comprises:

a gateway switch, coupled to the demodulator, that forwards source information to an addressed one of a plurality of subscriber devices.

136. (Previously presented) The communication system of claim 135, wherein each gateway device further comprises:

a plurality of converters, each coupled to the gateway switch, that converts source information to an appropriate format for a corresponding subscriber device.

PAGE 20/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

137. (Previously presented) The communication system of claim 136, further comprising:

a set top box coupled to the gateway device; and

the gateway device including a video converter that converts source information into video data that is forwarded to the set top box.

138. (Previously presented) The communication system of claim 136, further comprising:

a telephone coupled to the gateway device; and

the gateway device including an audio converter that converts digital audio data from the source information into telephone analog signals that are provided to the telephone.

139. (Previously presented) The communication system of claim 135, wherein each gateway device further comprises:

management and control logic, coupled to the gateway switch, that monitors bandwidth usage of a corresponding subscriber destination and that forwards bandwidth usage information to the point of distribution.

140. (Previously presented) The communication system of claim 139, wherein the management and control logic monitors bandwidth usage for each of one or more service types and reports service type bandwidth usage to the point of distribution.

141. (Previously presented) The communication system of claim 139, wherein the management and control logic receives a physical address request in broadcast format from a local subscriber device, converts the request to unicast format, and forwards the unicast physical address request to the point of distribution.

142. (Previously presented) The communication system of claim 132, wherein each gateway device further comprises:

PAGE 21/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58

a splitter, for coupling to the coaxial cable, that splits broadcast content from the electrical signal.

143. (Previously presented) The communication system of claim 142, wherein each gateway device further comprises:

a video converter, coupled to the splitter, that converts digital video information into analog format.

144. (Previously presented) The communication system of claim 132, wherein each of the plurality of gateway devices further comprises:

a modulator that modulates subscriber information from a subscriber device; and

an up converter, coupled to the modulator and the coaxial cable, that converts modulated subscriber information to a radio frequency (BY) signal into an assigned subscriber upstream channel and that transmits the upstream RF signal to the optical transceiver node via the coaxial cable.

145. (Previously presented) The communication system of claim 144, wherein each of the plurality of gateway devices further comprises:

a converter, coupled to the modulator and for coupling to a subscriber device, that converts the subscriber information into digital format.

146. (Previously presented) The communication system of claim 144, further comprising:

the optical transceiver node including an optical converter that converts a plurality of upstream RF signals from the coaxial cable into an upstream optical signal and that transmits the upstream optical signal to the point of distribution via the optical plant.

PAGE 22/23 * RCVD AT 8/31/2007 9:20:10 AM [Eastern Daylight Time] * SVR:USPTO-EFXRF-2/11 * DNIS:2738300 * CSID:(718) 504-9671 * DURATION (mm-ss):10-58